Washington State Health Care Authority
Health Information Infrastructure Final Report

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Executive Summary [to be added later]

In the Institute of Medicine report, "To Err is Human"[1], the pervasive problems of safety and quality in the delivery of health care were brought to the nation's attention. A key contributor to the problem was the limited application of modern information management or health information technology to ensure communication and accurate dissemination of patient information among health care providers.

In response to this limited application of technology, Substitute Senate Bill 5064 (SSB 5064) was enacted as Chapter 261, Laws of 2005. The bill requires the Heath Care Authority (HCA) to establish and collaborate with a Health Information Infrastructure Advisory Board (HIIAB) to "develop a strategy for the adoption and use of electronic medical records (EMRs) and health information technologies that are consistent with emerging standards and promote interoperability of health information systems."

This document is the final report with recommendations due December 1, 2006, as mandated in SSB 5064. The report discusses the process HCA and the HIIAB used to gather relevant information about the current state of health information technology in Washington State and the development of the target statement for statewide interoperability. The discussion ensues with a roadmap depicting the incremental steps necessary to achieve the target, including the associated risks and benefits. The report concludes with a proposed action plan to create a health information infrastructure for

Washington State providing the framework for promoting the adoption and use of EMRs and interoperability of health information systems.

I. Background and History

The origin of the health information infrastructure (HII) and the electronic medical record can be traced to an Institute of Medicine (IOM) report in 1991 entitled "The Computer-Based Patient Record: An Essential Technology for Health Care."[2] This report and its revised version in 1997 spurred considerable activity on the issue of health information technology (HIT) and management. Modern information management is now clearly recognized as an essential prerequisite to improving all aspects of health care, leading the IOM committee on patient safety to conclude in 2003 that "establishing this information technology infrastructure should be the highest priority for all health care stakeholders."[3]

In response to this conclusion a key implementation strategy emanating from the IOM, the 2003 National Health Information Infrastructure consensus national agenda development meeting,[4] and the Department of Health and Human Services Framework for Strategic Action[5] was the concept of building local and/or regional health information infrastructures (HIIs). These infrastructures would facilitate the organizational, financial, legal, and technical capabilities needed to interconnect all sources of health information such as electronic medical records.[6] Since health care itself is a local activity, and the difficult sociopolitical issues related to sharing health information are well brought up at the local level, this approach seemed both pragmatic and feasible. This view has been reinforced by the early successes of a few community HII projects, such as Spokane, Washington and South Bend, Indiana.

In addition to this strategy, the concept of a personal health record (PHR) and the involvement of the health care consumer is driving the need for interoperable health information infrastructures and playing an important role in improving health care. Although the definition of a PHR has been the subject of discussion and debate, it is generally recognized as a technology product focused on collecting information entered by the patient.[7] However, this definition is expanding and according to the Markle Foundation's report in 2003[8] a PHR is "an Internet-based set of tools that allows people to access and coordinate their life-long health information and make appropriate parts of it available to those who need it."

Today these health information technologies are in use by providers and health care consumers, but limited in effectiveness due to lack of interoperability. As health care consumers directly assume an increasing portion of the financial responsibility for health care, consumer demand for health information will increase. Although the widespread use of health information technology is limited, growing evidence of positive impacts on the quality and cost of care are emerging in its support. Development of a health information infrastructure is a critical prerequisite to …*work on this later to make a smooth transition to the target statement section*

II. Target Statement

The overall objective of the Washington State Health Information Infrastructure is to ensure the timely availability of health information and decision support whenever and wherever needed to improve the health of consumers, the quality of health care delivered, and the efficiency of the health care system. According to the legislation, the target statement for the project should:

- Be informed by the experience of others
- Encourage providers to adopt EMRs and HIT
- Enable secure online access to medical records for patients
- Promote the use of standards
- Overcome implementation obstacles
- Preserve privacy

To that end…*finish this lead-in sentence to make the transition to the target statement that follows:*

The Washington State Health Information Infrastructure (WSHII) is an electronic information system available to everyone in Washington State. It provides access to all substantive health care information for each consumer who chooses to voluntarily participate. Each consumer/patient controls all access to their information. Consumer health information is made available in a secure manner for use to improve the health of consumers, the quality of health care delivered, and the efficiency of the health care system. Privacy, security, and integrity of the consumer's health information are protected.

The system is implemented incrementally. It uses standards for encoding and transmitting information (e.g. to facilitate decision support). It is fully sustained through operational revenue. Information available on the WSHII includes inpatient, outpatient, long-term care, home health, lab, medication, imaging, consumer-generated information, and coverage and payment data. A trusted organization operates any shared elements of the system outside existing healthcare organizations in an open and transparent manner to facilitate accountability. The system is highly reliable and continuously available.

Specific requirements for the WSHII were adopted by HIIAB with regard to function, privacy, confidentiality, security, organization, financing and technical requirements. A complete list of the requirements is presented in Appendix A.

III. Process

The HIIAB conducted periodic work sessions and additional activities in conjunction with the HCA that afforded numerous opportunities for stakeholder involvement and input prior to developing recommendations. During deliberations, the Board was guided by several values that provided clarity of purpose and context for their work. These values were visionary leadership, unquestioned integrity, accountability, openness, realistic expectations, efficiency and effective application of existing knowledge. Details of these values are outlined in Appendix B.

To inform HIIAB members, and provide both background and context for deliberations, the meetings included presentations related to specific WSHII efforts in Washington and other states. These were further supplemented by selected background readings and other staff research. Specifically, information about the history and current status of HII-related activities in Washington and elsewhere with emphasis on lessons learned. Whenever possible, these background materials have been made available on the HCA web site devoted to HIIAB activities, along with meeting schedules, agendas, and other relevant documents. A listing of the presentations, readings, and research documents organized by meeting dates is presented in Appendix C.

Additional stakeholder input beyond the HIIAB was solicited by HCA through several mechanisms. First, a Stakeholder Advisory Committee, with broad representation

from all areas of health care, was formed and met periodically to review HIIAB proposals and provide feedback and input to HCA and the HIIAB. Several stakeholder-specific groups were convened to provide additional input to the HCA and the HIIAB. Finally, several (?) town hall meetings were held to inform, educate, and engage the community about the HIIAB and health information technology. These activities were designed to ensure that key stakeholders were both aware of the HIIAB and had the opportunity to review and comment on proposed HIIAB recommendations. By casting a wide net and encouraging the broadest stakeholder participation, the final recommendations are more realistic and therefore likely to garner widespread support.

IV. Current State

(Devote a couple of paragraphs to describe the "current state" with regard to Washington State's health information technology - the good and the not so good…also what we know about this with respect to the benefits and risks of the current situation. Then we may want to lead into how this helped the Board come up with the desired design principles.)

The HIIAB adopted design principles to lead, guide, and direct the WSHII development efforts. These were derived from information based on the current state of the health information infrastructure in this state and the Board's deliberations of best practices, expert consultation, and research information. The design principles include achievability, a consumer-centered focus, incremental in implementation, a focus on security and privacy, inclusive and collaborative to increase success, and implementation,

adoption and use aligned with appropriate incentives. The design principles are described in detail in Appendix D.

(After these two sections we may want to launch into a "just-right" discussion about the proposed models, the advantages, disadvantages and the discussion about the recommended competitive banking model for the WSHII. This may also be an area where we to weave-in feedback from the Stakeholder Report meetings and the feedback tool.)

V. Recommendation *(Should we add this heading to designate a specific place where the specifics of the recommendation are clearly outlined?)*

VI. Incremental Steps *(or Incremental Implementation?)*

(Here's where we'll discuss the recommended implementation steps AKA our "road map" that answers the question…"What do we do to get there?" and includes information about timeline, resources, and policy. This section may also be the place to include a paragraph or two in reference to the recommendations from the subcommittees in conjunction with the implementation steps.)

VII. Risks/Benefits

(This is where we discuss the benefits of the WSHII and the risks of what we don't know. The feedback from HIISAC may be useful to put here.)

VIII. Action Plan

This report reflects the strong desire of the HIIAB that its work produce tangible and immediate results. HCA and the HIIAB members have strived to develop an action plan that is both realistic and achievable, so the state of Washington can move rapidly and effectively to use health information technology for the benefit of all its citizens.

(Spell out the proposed action plan, establishment of a "go-forward" governing body, funding needs??? for the next two years of a multi-year plan including what we need the legislative body to do. We should also weave in formal checkpoints or process checks as part of the overall action plan. This serves as a directional and/or environmental check that asks the question, "Are we on track with the plan and if yes, is what we're doing still making sense in the current health care business environment.")

References

[1]Institute of Medicine. (2000). *To err is human: Building a safer health care system*. Committee on Quality of Health Care in America. Washington, DC: National Academy Press.

[2]Institute of Medicine. (1991). *The computer-based patient record: An essential technology for health care*. Washington, DC: National Academy Press.

[3]Institute of Medicine. (2003). *Patient safety: Achieving a new standard for care.* Committee on Data Standards for Patient Safety. Washington, DC: National Academy Press.

[4]Yasnoff, W.A., Humphreys, B.L., & Overhage, J.M. (2004). A consensus action agenda for achieving the national health information infrastructure. *Journal of American Medical Informatics Association, 11*(4), pp. 332-338.

[5] Brailer, D.J. (2004, July). *The decade of health information technology: Delivering consumer-centric and information-rich health care. Framework for strategic action.* Retrieved June 5, 2005 from the U.S. Department of Health and Human Services Web site: http://www.hhs.gov/healthit/documents/hitgramework.pdf

[6] Lorenzi, N.M. (2003, December 16). *Strategies for creating successful local health information infrastructure initiatives.* Retrieved June 5, 2005 from the U.S. Department of Health and Human Services Web site: http://aspe.hhs.gov/sp/nhii/LHII-Lorenzi-12.16.03.pdf

[7] American Health Information Management Association. (2005). *MyPHR*. Retrieved October 8, 2005 from the American Health Information Management Association Web site: http://www.myphr.com/

[8] Markle Foundation (2003, July 1). *Personal health working group: Final report.* Connecting for Health. Retrieved October 8, 2005 from the Markle Foundation Web site: http://www.connectingforhealth.org/resources/final_phwg_report1.pdf

Appendices

Appendix A – Washington State HII Requirements *(This will be a separate document, but is listed here for now. Note: when transferring to another document try to get this to fit on one page.)*

Functions

1. The substantive health record(s) (HR*) of each participating consumer from all sources (with each source identified) is available to authorized users when/where needed, and unavailable otherwise.
2. Participation in the WSHII system is voluntary and available to all consumers.
3. Consumers control access to each portion of their HR (i.e. each consumer designates the authorized users of each portion of their HR).
4. Incomplete information or errors in HR information can be addressed by authorized users via systematic procedures.
5. All or part of a consumer's HR information may be transferred securely and electronically at the consumer's request.
6. With voluntary patient authorization, HR information may be made available for public health and medical learning.
7. All information maintained by the system is reliably associated with the correct consumer.

Privacy, Confidentiality, and Security

8. All users are reliably authenticated.
9. Consumers may obtain a report of all inquiries made and/or activities performed on their HR.
10. The WSHII system complies with all applicable privacy and security statutes and regulations.
11. WSHII system security is maintained and reviewed periodically to assess compliance with the then current state-of-the-art

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Organization & Finance

12. A trusted organization operates any shared elements of the WSHII system that are outside existing healthcare organizations.
13. The WSHII system provides value to healthcare stakeholders and is financially sustainable.
14. Healthcare stakeholders can feasibly participate as users and (if appropriate) as data sources.

Technical

15. HR information is transmitted electronically using national standards whenever available (and system standards when not).

16. WSHII users are able to use whatever information system(s) they choose, provided they can transmit and receive information using designated standards.
17. The WSHII system is continuously available and highly reliable.
18. The WSHII accommodates the use of existing infrastructure.
19. The WSHII system is scalable to accommodate all consumers of health care in Washington State.

Appendix B – Washington State HIIAB Values *(This will be a separate document, but is listed here for now.)*

- **Visionary Leadership –** Address complex issues, make tough decisions, and deliver long-term, practical results.
- **Unquestioned Integrity –** Act impartially and fairly in the interest of all the people of Washington State. Seek consensus and the greater good in decisions / recommendations by balancing differing points of view.
- **Accountability** – Focus on completing work successfully and on time with informed, deliberate and open discussions using data and analyses.
- **Openness** – Listen to all points-of-view, seek input and feedback in a broad, inclusive, and timely manner.
- **Realistic Expectations** – Seek achievable outcomes that are tangible and functional.
- **Efficiency –** Focus resources and expertise where they can achieve maximum value can be achieved.
- **Effective Application of Existing Knowledge -** Build upon and leverage efforts, resources and experiences of others.

Appendix C – HIIAB Health Information Technology Presentations, Readings, and Research Documents *(This will be a separate document, but is listed here for now and will be a reference of the materials presented to the Board at each meeting.)*

Appendix D – Washington State Health Information Infrastructure Design Principles *(This will be a separate document, but is listed here for now.)*

Achievable

- Maximize simplicity
- Promote tangible and functional outcomes
- Leverage opportunities and apply best practices based on local and national experience
- Keep recommendations realistic (e.g. interoperability capabilities)

2. **Consumer / User Centered**
   - Promote ease-of-use and portability
   - Promote/ provide access to information to patients/consumers in balanced ways
   - Obtain and administer access responsibly with patient permission
   - Allow patient input and interaction
3. **Incremental**
   - Each step must build on existing systems and be as self-sustaining as possible
   - Maximize stakeholder consensus
4. **Ensure Security & Privacy**
   - Use trusted solutions
   - Use a trusted third party
   - Ensure integrity of data
5. **Inclusive & Collaborative Process**
   - Promote cooperation over competition
   - Ensure proper roles for government and the marketplace
6. **Align Incentives**
   - Pay for performance to achieve better outcomes
   - Maximize quality and efficiency
   - Promote consumer involvement
   - Make participation voluntary
   - Ensure sustainability
   - Work locally